

## PATENT ABSTRACTS OF JAPAN

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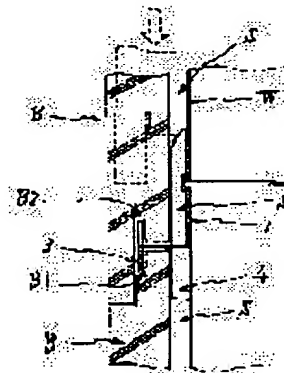
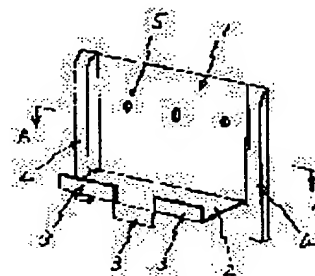
## (54) FASTENING METAL FITTING OF EXTERNAL WALL MATERIAL

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To facilitate the construction work by forming a fastening metal fitting out of a basic plate which is along a wall bed face, a wall plate support part, a wall plate latching claw which is formed by bending a tip of the wall plate support part, and a riblike projection which is extended in both ends in the direction of width of the basic plate.

**SOLUTION:** A fastening metal fitting is formed out of a basic plate 1 along a wall bed face W, a wall plate support part 2 extended at a right angle from the basic plate 1, a wall plate latching claw 3 formed by bending a tip of the wall plate support part 2, and a riblike projection 4. When a wall plate B is fixed by the fastening metal fitting, the latching claw 3 is engaged with an engaging groove B1 at an upper end of the wall plate B along the wall bed face W, and the basic plate 1 is fixed on the wall bed face W by driving nails.

Furthermore, the riblike projection 4 extended downward is provided on a rear surface of the wall plate B to form a vent space S between the wall bed face W and the rear surface of the wall plate B by the riblike projection 4. Consequently, it is possible to prevent the occurrence of mold in a rear surface part of a column owing to the vent space.



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**CLAIMS**

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[Claim(s)]

[Claim 1] The substrate 1 along a wall substratum side, and the tapetum support section 2 which extended at the abbreviation right angle from this substrate 1, The tapetum hook presser foot stitch tongues 3 and 3 which come to carry out the bending molding of the nose of cam of this tapetum support section 2 at a front rear-face side, The fastening of the outer wall material characterized by consisting of rib-like salients 4 and 4 to which a upper limit has a smooth surface, and bulged to the crosswise ends of the aforementioned substrate 1 at the substrate 1 front-face side, and the soffit extended more below than the aforementioned tapetum support section 2.

[Claim 2] The fastening of the outer wall material according to claim 1 characterized by coming to prepare \*\*\*\* 5A and 5B of the size couple from which a path is different in the substrate 1 along a wall substratum side in a two or more pairs cross direction parallel.

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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the fastening of outer wall material.

[0002]

[Description of the Prior Art] Fastening A of the outer wall material which consists of the substrate 1 which meets a wall substratum side as metallic ornaments for fixing to a wall substratum as shown in drawing 6, the tapetum support section 2 which extended at the abbreviation right angle from this substrate 1, and the tapetum hook presser foot stitch tongues 3 and 3 which come to carry out the bending molding of the nose of cam of this tapetum support section 2 at a front rear-face side is known, without \*\*\*\*\*ing a fiber reinforcement cement plate from a front face conventionally. As shown in drawing 7, hook fastening A of this seed outer wall material on the engagement slot B1 of the upper limit of tapetum B made to meet wall substratum side W, it makes a presser foot stitch tongue 3 engaged, and fixes a substrate 1 to wall substratum side W with a nail etc. Making the junction step of the Gokami grade tapetum B engage with the junction step of low order tapetum B, hook on engagement slot B-2 formed in high order tapetum B, a presser foot stitch tongue 3 is made engaged, and it is used. Therefore, according to the fastening of this outer wall material, anchoring of tapetum B is attained firmly, without hooking [ as opposed to / a wall surface / again ] in the vertical orientation in the right-angled orientation with the tapetum support implement 2, being fixed by presser foot stitch tongues 3 and 3, and a nail head etc. being exposed to a tapetum front face.

[0003]

[Description of the Prior Art] However, since an opening is hardly made between substrate 1 front face and a tapetum B rear face but the firm attachment fraction of the fastening of outer wall material usually moreover turns into a stud fraction when tapetum B is attached firmly by the above-mentioned fastening, between a stud front face and a tapetum rear face, aeration space is hardly formed. Therefore, when storm sewage etc. might permeate the tapetum rear face, it did not dry easily, but there was a fault of being easy to generate mold into a cylinder rear-face fraction.

[0004]

[Problem(s) to be Solved by the Invention] This invention is made for the purpose of aeration space being formed of a fastening, when attaching a tapetum firmly, without a nail head being exposed to a front face in view of the above-mentioned trouble.

[0005]

[Means for Solving the Problem] The substrate 1 to which the fastening of outer wall material according to claim 1 meets a wall substratum side, and the tapetum support section 2 which extended at the abbreviation right angle from this substrate 1, It is characterized by consisting of tapetum hook presser foot stitch tongues 3 and 3 which come to carry out the bending molding of the nose of cam of this tapetum support section 2 at a front rear-face side, and rib-like salients 4 and 4 to which a upper limit has a smooth surface, and bulged to the crosswise ends of the aforementioned substrate 1 at the substrate 1 front-face side, and the soffit extended more below than the aforementioned tapetum support section 2.

[0006] In the fastening of outer wall material according to claim 1, as for the fastening of outer wall material according to claim 2, \*\*\*\* 5A and 5B of the size couple from which a path is different in the substrate 1 along a wall substratum side is characterized by coming to be prepared in a two or more pairs cross direction parallel.

[0007]

[Example] Next, the example of this invention is explained. Drawing 1 is a cross section in which the A-A line cross section of drawing 1 and the drawing 3 showing the side elevation of drawing 1, and, as for drawing 4, showing [ the perspective diagram of the example of this invention, and / 2 ] a busy condition.

[0008] The substrate 1 to which the fastening of the outer wall material of this invention meets a wall substratum side, and the tapetum support section 2 which extended at the abbreviation right angle from this substrate 1, It consists of tapetum hook presser foot stitch tongues 3 and 3 which come to carry out the bending molding of the nose of cam of this tapetum support section 2 at a front rear-face side, and rib-like salients 4 and 4 to which a upper limit has a smooth surface, and bulged to the crosswise ends of the aforementioned substrate 1 at the substrate 1 front-face side, and the soffit extended more below than the aforementioned tapetum support section 2.

[0009] Setting above, the fastening of outer wall material is 0.6-1.0mm in thickness. It is fabricated by the bending press of the stainless steel plate of a grade etc. Moreover, in the above-mentioned example, 5 of drawing 1 may form \*\*\*\* 5A and 5B of the size couple from which a path is different in a two or more pairs cross direction parallel, as \*\*\*\* which fixes a substrate 1 to a wall substratum is shown and it is shown in drawing 5 as a configuration of this \*\*\*\*.

[0010] When attaching a tapetum firmly by the fastening of the above-mentioned outer wall material, hook on the engagement slot B1 of the upper limit of tapetum B made to meet wall substratum side W first, a presser foot stitch tongue 3 is made engaged, and a substrate 1 is fixed to wall substratum side W with a nail etc. Since it is placed between the rear faces of tapetum B by the rib-like salients 4 and 4 made to extend below at this time, between wall substratum side W and a tapetum B rear face, space S of the height of the rib-like salients 4 and 4 is formed of these salients 4 and 4.

[0011] Making the junction step of the Gokami grade tapetum B engage with the junction step of low order tapetum B, it hooks on engagement slot B-2 formed in high order tapetum B, and a presser foot stitch tongue 3 is made engaged. Although it is necessary to make it slide as a dotted line shows along with wall substratum side W when [ required ] high order tapetum B joins a junction step etc. at this time, and to take down, the curved surface of the upper part of the rib-like salients 4 and 4 formed in the crosswise ends of a substrate 1 serves as a guidance guide, and high order tapetum B is taken down smoothly, without being caught in rib-like salient 4 upper limit.

[0012] And when high order tapetum B is hooked and it is made to engage with a presser foot stitch tongue 3, low order and the high order tapetums B and B are fixed after having been detached by the rib-like salients 4 and 4 by the height of wall substratum W and substrate 1 front face to the rib-like salients 4 and 4. Therefore, aeration space S which was open for free passage in the vertical orientation is formed in a tapetum B rear face.

[0013] In the above, as shown in drawing 5, when \*\*\*\* 5A and 5B from which the diameter of size is different is formed, after tacking carrying out of the substrate 1 to parvus \*\*\*\* 5A with the thin nail at first and carrying out position correction, the thick nail for this fixation can be driven into \*\*\*\* 5B of a large path, and the certainty of anchoring construction can attain easily. Moreover, if it is a slant face like illustration of internal-surface-of-parietal-bone side 4A (refer to the drawing 2) of the rib-like salients 4 and 4, since a level difference will be lost, nailing \*\*\*\*\* to a substrate 1 becomes easy.

[0014]

[Effect of the Invention] While a tapetum is fixable according to the fastening of the outer wall material of this invention so that a nail head may not be exposed to a front face as explained above, it has the effect that aeration space is formed between a tapetum rear face and a wall

substratum side. Moreover, since it can fabricate easily by the press forming from the steel plate of one sheet, operation also has the effect of being able to provide easily and cheaply.

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**DESCRIPTION OF DRAWINGS**

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[Brief Description of the Drawings]

[Drawing 1] It is the perspective diagram of the example of this invention.

[Drawing 2] It is the A-A line cross section of drawing 1 .

[Drawing 3] It is the side elevation of drawing 1 .

[Drawing 4] It is the cross section showing the busy condition of an example.

[Drawing 5] It is the perspective diagram of the conventional example.

[Drawing 6] It is the cross section showing the busy condition of the conventional example.

[Description of Notations]

1 — Substrate along a wall substratum side

2 — Tapetum support section

3 — Tapetum hook presser foot stitch tongue

4 — Rib-like salient

5 — \*\*\*\*

5A, 5B — \*\*\*\* of the size couple from which a path is different

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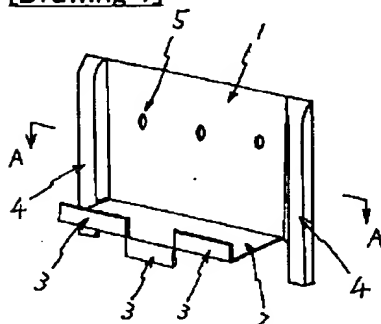
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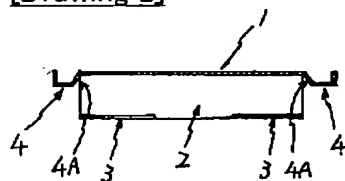
**DRAWINGS**


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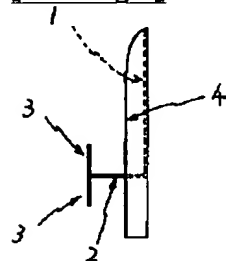
[Drawing 1]



[Drawing 2]

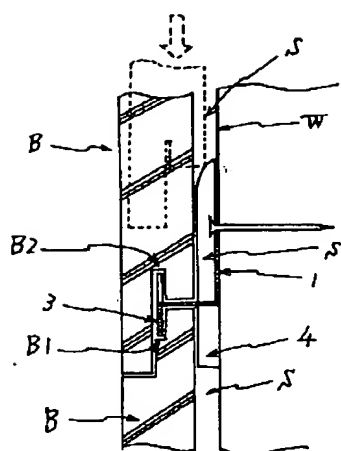


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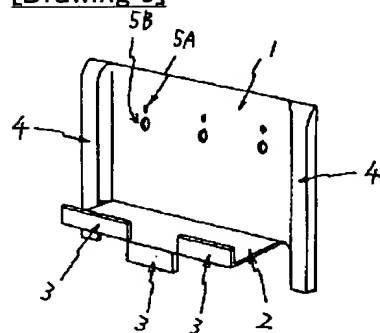


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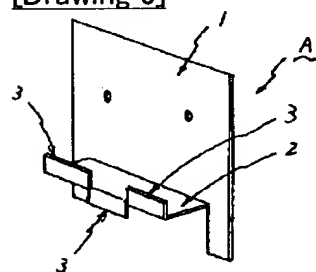




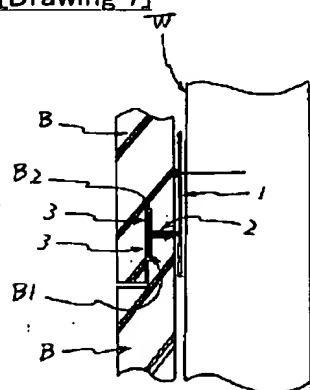
[Drawing 5]



[Drawing 6]



[Drawing 7]



[Translation done.]

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W43 → 277

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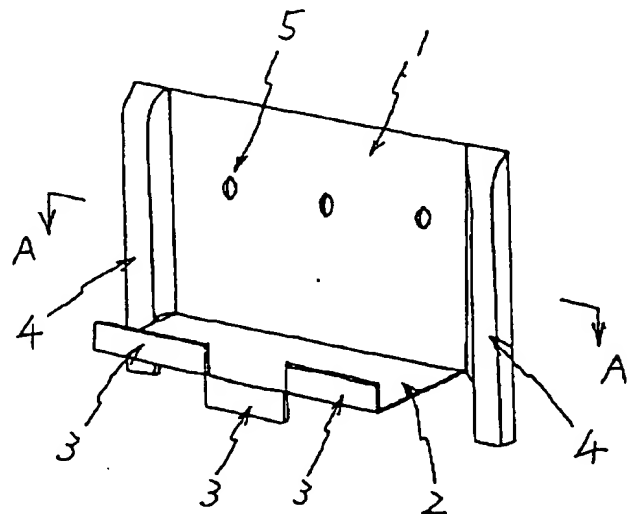
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(54) 【発明の名称】 外壁材の留め金具

(57) 【要約】

【課題】 外壁材の留め金具により、表面に釘頭が露出することなく壁板を止着する場合において、留め金具によって通気空間が形成されるようにすることを目的とする。

【解決手段】 壁下地面に沿う基板1と、該基板1から略直角に延出された壁板支持部2と、該壁板支持部2の先端を表裏面側に折曲成形してなる壁板引掛け爪3、3と、前記基板1の幅方向両端に基板1表面側に上端が滑らかな曲面を有して膨出され下端が前記壁板支持部2より下方へ延出されたリブ状突起4、4とからなる。



## 【特許請求の範囲】

【請求項1】 壁下地面に沿う基板1と、該基板1から略直角に延出された壁板支持部2と、該壁板支持部2の先端を表裏面側に折曲成形してなる壁板引掛け爪3、3と、前記基板1の幅方向両端に基板1表面側に上端が滑らかな曲面を有して膨出され下端が前記壁板支持部2より下方へ延出されたリブ状突起4、4とからなることを特徴とする外壁材の留め金具。

【請求項2】 壁下地面に沿う基板1に、径の異なる大小一对の釘孔5A、5Bが2対以上幅方向並列に設けられてなることを特徴とする請求項1に記載の外壁材の留め金具。

## 【発明の詳細な説明】

【0001】

【産業上の利用分野】 この発明は外壁材の留め金具に関する。

【0002】

【従来の技術】 従来、繊維補強セメント板を表面から釘打ちすることなく壁下地に固定するための金具として、図6に示すように壁下地面に沿う基板1と、該基板1から略直角に延出された壁板支持部2と、該壁板支持部2の先端を表裏面側に折曲成形してなる壁板引掛け爪3、3とからなる外壁材の留め金具Aが知られている。この種外壁材の留め金具Aは図7に示すように、壁下地面Wに沿わせた壁板Bの上端の係合溝B1に引掛け爪3に係合させて基板1を壁下地面Wに釘等により固定し、その後上位壁板Bの接合段部を下位壁板Bの接合段部に係合させつつ、上位壁板Bに形成された係合溝B2に引掛け爪3に係合させて使用される。従って、この外壁材の留め金具によれば壁板Bは、上下方向には壁板支持部2により、また壁面に対し直角な方向には引掛け爪3、3により固定され、壁板表面に釘頭等が露出することなく強固に取付け可能となる。

【0003】

【従来技術の問題点】 しかしながら、上記留め金具で壁板Bを止着した場合、基板1表面と壁板B裏面との間には殆ど隙間ができず、しかも外壁材の留め金具の止着部分は通常間柱部分となるので、間柱表面と壁板裏面との間には通気空間が殆ど形成されることがない。従って、壁板裏面へ雨水等が浸透するようなことがあるとなかなか乾燥せず、柱裏面部分に霉が発生しやすいといった欠点があった。

【0004】

【発明が解決しようとする課題】 この発明は上記問題点を鑑み、表面に釘頭が露出することなく壁板を止着する場合において、留め金具によって通気空間が形成されるようにすることを目的としてなされたものである。

【0005】

【課題を解決するための手段】 請求項1に記載の外壁材の留め金具は、壁下地面に沿う基板1と、該基板1から

略直角に延出された壁板支持部2と、該壁板支持部2の先端を表裏面側に折曲成形してなる壁板引掛け爪3、3と、前記基板1の幅方向両端に基板1表面側に上端が滑らかな曲面を有して膨出され下端が前記壁板支持部2より下方へ延出されたリブ状突起4、4とからなることを特徴とするものである。

【0006】 請求項2に記載の外壁材の留め金具は、請求項1に記載の外壁材の留め金具において、壁下地面に沿う基板1に、径の異なる大小一对の釘孔5A、5Bが2対以上幅方向並列に設けられてなることを特徴とするものである。

【0007】

【実施例】 次にこの発明の実施例を説明する。図1はこの発明の実施例の斜視図、図2は図1のA-A線断面図、図3は図1の側面図、図4は使用状態を示す断面図である。

【0008】 この発明の外壁材の留め金具は、壁下地面に沿う基板1と、該基板1から略直角に延出された壁板支持部2と、該壁板支持部2の先端を表裏面側に折曲成形してなる壁板引掛け爪3、3と、前記基板1の幅方向両端に基板1表面側に上端が滑らかな曲面を有して膨出され下端が前記壁板支持部2より下方へ延出されたリブ状突起4、4とから構成されている。

【0009】 上記において、外壁材の留め金具は厚さ0.6～1.0mm程度のステンレス鋼板の折曲プレスなどにより成形される。また、上記実施例において図1の5は基板1を壁下地に固定する釘孔を示し、この釘孔の構成として図5に示すように、径の異なる大小一对の釘孔5A、5Bを2対以上幅方向並列に設けても良い。

【0010】 上記外壁材の留め金具により壁板を止着する場合、まず壁下地面Wに沿わせた壁板Bの上端の係合溝B1に引掛け爪3に係合させて基板1を壁下地面Wに釘等により固定する。このとき、壁板Bの裏面には、下方へ延出させたりぶ状突起4、4が介在されるため、この突起4、4によって壁下地面Wと壁板B裏面との間にはリブ状突起4、4の高さの空間Sが形成される。

【0011】 その後上位壁板Bの接合段部を下位壁板Bの接合段部に係合させつつ、上位壁板Bに形成された係合溝B2に引掛け爪3に係合させる。このとき、上位壁板Bは接合段部等を接合させる必要上、壁下地面Wに沿って点線で示すように滑らせて降ろす必要があるが、基板1の幅方向両端に形成したリブ状突起4、4の上部の曲面が案内ガイドとなって上位壁板Bはリブ状突起4、4の上部に引っ掛かることなくスムーズに降ろされる。

【0012】 そして、上位壁板Bを引掛け爪3に係合させたとき、下位及び上位壁板B、Bはリブ状突起4、4により壁下地W及び基板1表面から、リブ状突起4、4の高さ分だけ離された状態で固定される。従って、壁板B裏面には上下方向に連通した通気空間Sが形成される。

【0013】上記において、図5に示したように大小径の異なる釘孔5A、5Bを設けた場合、最初は小さい釘孔5Aに細い釘で基板1を仮止めしておき、位置修正をした後に大きい径の釘孔5Bに本固定用の太い釘を打ち込むことができ、取付け施工の確実性が容易に達成できる。また、リブ状突起4、4の内面側4A（図2参照）を図示のように斜面としておくと、段差がなくなるので基板1への釘打ち施工が容易になる。

【0014】

【発明の効果】以上説明したように、この発明の外壁材10の留め金具によれば、壁板を、表面に釘頭が露出しないように固定できると同時に、壁板裏面と壁下地面との間に通気空間が形成される効果を有する。また、一枚の鋼板からプレス成形により容易に成形できるので実施も容易であり安価に提供できるなどの効果を有する。

【図面の簡単な説明】

【図1】この発明の実施例の斜視図である。

【図2】図1のA-A線断面図である。

【図3】図1の側面図である。

【図4】実施例の使用状態を示す断面図である。

【図5】従来例の斜視図である。

【図6】従来例の使用状態を示す断面図である。

【符号の説明】

1…壁下地面に沿う基板

2…壁板支持部

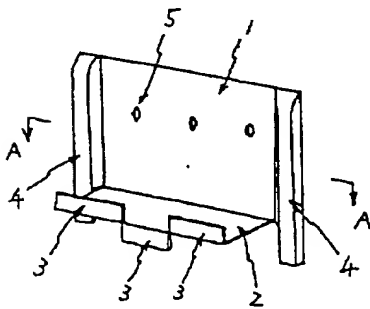
3…壁板引掛け爪

4…リブ状突起

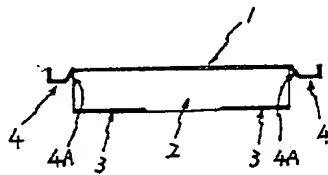
5…釘孔

5A、5B…径の異なる大小一对の釘孔

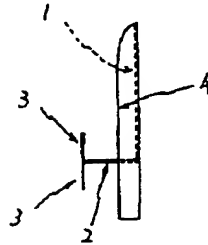
【図1】



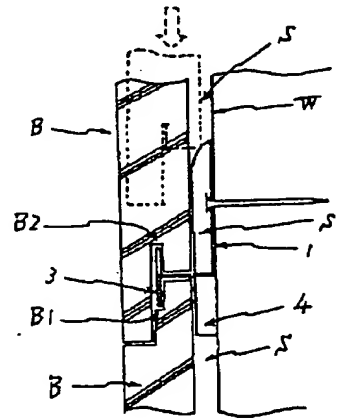
【図2】



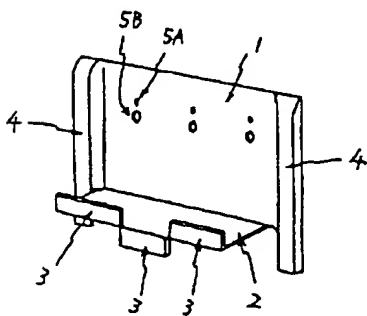
【図3】



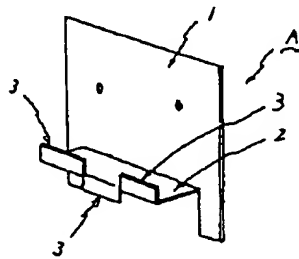
【図4】



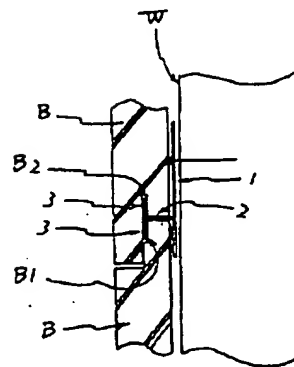
【図5】



【図6】



【図7】



【手続補正書】

【提出日】平成8年7月16日

【手続補正1】

【補正対象書類名】明細書

【補正対象項目名】図面の簡単な説明

【補正方法】変更

【補正内容】

【図面の簡単な説明】

【図1】この発明の実施例の斜視図である。

【図2】図1のA-A線断面図である。

【図3】図1の側面図である。

【図4】実施例の使用状態を示す断面図である。

【図5】実施例の斜視図である。

【図6】従来例の斜視図である。

【図7】従来例の使用状態を示す断面図である。

【符号の説明】

1…壁下地面に沿う基板

2…壁板支持部

3…壁板引掛け爪

4…リブ状突起

5…釘孔

5A、5B…径の異なる大小一对の釘孔